

March 10, 2008

Chip Humphrey Eric Blischke U.S. Environmental Protection Agency, Region 10 805 SW Broadway, Suite 500 Portland, OR 97205

Re: Lower Willamette River, Portland Harbor Superfund Site USEPA Docket No: CERCLA-10-2001-0240

Monthly Progress Report for February 2008

Dear Mssrs. Humphrey and Blischke:

This monthly status report provides information required by the Portland Harbor Superfund Site Administrative Settlement and Administrative Order on Consent (ASOC).

#### 1. ACTIONS TAKEN IN FEBRUARY 2008

- The Round 3 lamprey ammocoete toxicity testing program was completed in January. The final validated data set for all tested chemicals will likely be available in March.
- All Round 3B biota samples are under various stages of analysis at CAS and Axys, including clam samples with limited tissue mass that were approved for analysis in the beginning of February. Analysis of the biota samples is expected to be completed in early April 2008.
- Round 3B stormwater sampling was concluded in February. The stormwater technical team met on February 7<sup>th</sup> and it was decided that all equipment could be removed. All equipment was removed and sediment traps bottles were collected by February 14, 2008. Additional sediment collected in sediment trap bottles during the final deployment period was processed and sent to the laboratory to be combined with sediment already there. Total solids were measured again in order to come up with a prioritization of analyses for the sediment samples.
- Analysis and validation of third quarter in-river sediment trap samples are complete and fourth quarter samples continue to be analyzed and validated for the target compounds groups.

### **Deliverables Approved by EPA**

• None

### **Deliverables Submitted to EPA**

- February 15, 2008: Round 3B Biota Sampling Field Sampling Report
- February 29, 2008: Round 3A Sturgeon Sampling Data Report



## **Comments/Documents provided by EPA**

• February 15, 2008: Comments on Treatability Technical Memorandum

• February 15, 2008: BERA Problem Formulation

## 2. PROBLEMS ENCOUNTERED, ANTICIPATED DELAYS, AND SOLUTIONS

None.

## 3. RESULTS OF SAMPLING, TESTS, AND OTHER DATA RECEIVED

The following chemical analysis results were received and validated in February 2008:

| Round 3 Lamprey Ammocoete Toxicity Testing Phase 2 |                   |          |          |          |            |  |
|--|-------------------|----------|----------|----------|------------|--|
|  |                   |          | Data     |          |            |  |
|  |                   | Total #  | Received | %        | %          |  |
|  |                   | Samples  | February | Analysis | Validation |  |
| Lab  | Analyte Group     | for Task | 2008     | Complete | Complete   |  |
| CAS  | Conventionals     | 7        | 1        | 100      | 86         |  |
| CAS  | PCP               | 32       | 0        | 100      | 100        |  |
| CAS  | Lindane           | 32       | 0        | 100      | 100        |  |
| CAS  | Diazinon          | 32       | 32       | 100      | 0          |  |
| CAS  | Aniline           | 31       | 0        | 100      | 100        |  |
| CAS  | Naphthalene       | 63       | 0        | 100      | 100        |  |
| CAS  | Copper            | 32       | 0        | 100      | 100        |  |
| CAS  | Copper, dissolved | 32       | 0        | 100      | 100        |  |

Round 3 Sediment Trap (Deployed in River) Event III

|       |               |          | Data     |          |            |
|-------|---------------|----------|----------|----------|------------|
|       |               | Total #  | Received | %        | %          |
|       |               | Samples  | February | Analysis | Validation |
| Lab   | Analyte Group | for Task | 2008     | Complete | Complete   |
| CAS   | Conventionals | 11       | 0        | 100      | 100        |
| CAS   | Metals        | 10       | 0        | 100      | 100        |
| CAS   | Butyltins     | 9        | 0        | 100      | 100        |
| CAS   | TPH           | 10       | 0        | 100      | 100        |
| CAS   | VOC           | 7        | 0        | 100      | 100        |
| CAS   | Dioxins       | 8        | 0        | 100      | 100        |
| CAS   | Pesticides    | 10       | 3        | 100      | 100        |
| CAS   | PCBs          | 11       | 0        | 100      | 100        |
| CAS   | SVOC          | 10       | 0        | 100      | 100        |
| CAS   | Herbicides    | 10       | 0        | 100      | 100        |
| CAS   | PAH-SIM       | 10       | 0        | 100      | 100        |
| Vista | PCB congeners | 12       | 0        | 100      | 100        |



Round 3 Sediment Trap (Deployed in River) Event IV

|       |               |          | Data     |          |            |
|-------|---------------|----------|----------|----------|------------|
|       |               | Total #  | Received | %        | %          |
|       |               | Samples  | February | Analysis | Validation |
| Lab   | Analyte Group | for Task | 2008     | Complete | Complete   |
| CAS   | Conventionals | 17       | 0        | 82       | 82         |
| CAS   | Metals        | 17       | 0        | 82       | 82         |
| CAS   | Butyltins     | 16       | 0        | 88       | 88         |
| CAS   | TPH           | 14       | 0        | 100      | 100        |
| CAS   | VOC           | 17       | 0        | 100      | 100        |
| CAS   | Dioxins       | 17       | 0        | 82       | 82         |
| CAS   | Pesticides    | 17       | 0        | 82       | 82         |
| CAS   | PCBs          | 14       | 0        | 0        | 0          |
| CAS   | SVOC          | 16       | 0        | 88       | 88         |
| CAS   | Herbicides    | 14       | 0        | 100      | 100        |
| CAS   | PAH-SIM       | 16       | 0        | 88       | 88         |
| Vista | PCB congeners | 17       | 17       | 100      | 0          |

Round 3A Stormwater Outfalls - Sediment Traps

|       |                  |          | Data     |          |            |
|-------|------------------|----------|----------|----------|------------|
|       |                  | Total #  | Received | %        | %          |
|       |                  | Samples  | February | Analysis | Validation |
| Lab   | Analyte Group    | for Task | 2008     | Complete | Complete   |
| CAS   | Conventionals    | 27       | 0        | 100      | 100        |
| CAS   | Metals           | 8        | 0        | 100      | 100        |
| CAS   | Pesticides       | 17       | 17       | 100      | 100        |
| CAS   | Herbicides       | 8        | 0        | 100      | 100        |
| CAS   | PAH-SIM          | 12       | 0        | 100      | 100        |
| CAS   | Phthalate esters | 12       | 0        | 100      | 100        |
| Vista | PCB congeners    | 24       | 12       | 100      | 100        |

Round 3B Stormwater Outfalls (November Events I, II, III)

|       |                  | Total # Samples | Data<br>Received<br>February | %<br>Analysis | %<br>Validation |
|-------|------------------|-----------------|------------------------------|---------------|-----------------|
| Lab   | Analyte Group    | for Task        | 2008                         | Complete      | Complete        |
| CAS   | Conventionals    | 12              | 0                            | 100           | 100             |
| CAS   | Metals           | 13              | 0                            | 100           | 100             |
| CAS   | Metals dissolved | 12              | 0                            | 100           | 100             |
| CAS   | Pesticides       | 2               | 0                            | 100           | 100             |
| CAS   | Herbicides       | 8               | 0                            | 100           | 100             |
| CAS   | PAH-SIM          | 11              | 0                            | 100           | 100             |
| CAS   | Phthalate esters | 3               | 0                            | 100           | 100             |
| Vista | PCB congeners    | 8               | 8                            | 100           | 50              |



# Round 3B Stormwater Outfalls (January 2008 Storm Events I, II, III, IV, V)

|       |                  |          | Data     |          |            |
|-------|------------------|----------|----------|----------|------------|
|       |                  | Total #  | Received | %        | %          |
|       |                  | Samples  | February | Analysis | Validation |
| Lab   | Analyte Group    | for Task | 2008     | Complete | Complete   |
| CAS   | Conventionals    | 11       | 6        | 55       | 0          |
| CAS   | Metals           | 10       | 2        | 20       | 0          |
| CAS   | Metals dissolved | 7        | 1        | 14       | 0          |
| CAS   | Herbicides       | 9        | 4        | 44       | 0          |
| CAS   | PAH-SIM          | 8        | 3        | 38       | 0          |
| CAS   | Phthalate esters | 2        | 2        | 100      | 0          |
| Vista | PCB congeners    | 10       | 0        | 0        | 0          |

## Round 3B Biota

|      |               |          | Data     |          |            |
|------|---------------|----------|----------|----------|------------|
|      |               | Total #  | Received | %        | %          |
|      |               | Samples  | February | Analysis | Validation |
| Lab  | Analyte Group | for Task | 2008     | Complete | Complete   |
| Axys | Dioxins       | 101      | 10       | 10       | 0          |
| Axys | Pesticides    | 101      | 0        | 10       | 0          |
| Axys | PCB congeners | 101      | 10       | 10       | 0          |
| Axys | Lipids        | 101      | 10       | 10       | 0          |
| CAS  | Metals        | 101      | 37       | 37       | 0          |
| CAS  | Butyltins     | 100      | 37       | 37       | 0          |
| CAS  | SVOC          | 100      | 37       | 37       | 0          |
| CAS  | PAH-SIM       | 101      | 37       | 37       | 0          |

# Round 3B Biota - Collocated Sediments

| Lab   | Analyte Group | Total #<br>Samples<br>for Task | Data<br>Received<br>February<br>2008 | % Analysis Complete | %<br>Validation<br>Complete |
|-------|---------------|--------------------------------|--------------------------------------|---------------------|-----------------------------|
| CAS   | Conventionals | 32                             | 2                                    | 100                 | 66                          |
| CAS   | Metals        | 32                             | 2                                    | 100                 | 66                          |
| CAS   | Butyltins     | 32                             | 2                                    | 100                 | 66                          |
| CAS   | Dioxins       | 32                             | 2                                    | 100                 | 66                          |
| CAS   | Pesticides    | 32                             | 16                                   | 100                 | 66                          |
| CAS   | PCBs          | 32                             | 2                                    | 100                 | 66                          |
| CAS   | SVOC          | 32                             | 2                                    | 100                 | 66                          |
| CAS   | Alkylated PAH | 32                             | 2                                    | 100                 | 66                          |
| Vista | PCB congeners | 32                             | 30                                   | 94                  | 0                           |



| Round 3B Surface Sediments |               |          |          |          |            |  |
|----------------------------|---------------|----------|----------|----------|------------|--|
|                            |               |          | Data     |          |            |  |
|                            |               | Total #  | Received | %        | %          |  |
|                            |               | Samples  | February | Analysis | Validation |  |
| Lab                        | Analyte Group | for Task | 2008     | Complete | Complete   |  |
| CAS                        | Conventionals | 205      | 35       | 100      | 10         |  |
| CAS                        | Metals        | 205      | 35       | 100      | 10         |  |
| CAS                        | TPH           | 205      | 35       | 100      | 10         |  |
| CAS                        | Dioxins       | 52       | 5        | 100      | 12         |  |
| CAS                        | Pesticides    | 205      | 166      | 87       | 0          |  |
| CAS                        | PCBs          | 205      | 86       | 100      | 10         |  |
| CAS                        | SVOC          | 205      | 35       | 100      | 10         |  |
| CAS                        | Alkylated PAH | 205      | 35       | 100      | 10         |  |
| Vista                      | PCB congeners | 73       | 73       | 100      | 0          |  |

## Round 3B Subsurface Sediments

|       |               |          | Data     |          |            |
|-------|---------------|----------|----------|----------|------------|
|       |               | Total #  | Received | %        | %          |
|       |               | Samples  | February | Analysis | Validation |
| Lab   | Analyte Group | for Task | 2008     | Complete | Complete   |
| CAS   | Conventionals | 226      | 204      | 90       | 0          |
| CAS   | Metals        | 226      | 204      | 90       | 0          |
| CAS   | TPH           | 226      | 204      | 90       | 0          |
| CAS   | Dioxins       | 31       | 14       | 45       | 0          |
| CAS   | Pesticides    | 226      | 92       | 41       | 0          |
| CAS   | PCBs          | 226      | 204      | 90       | 0          |
| CAS   | SVOC          | 226      | 203      | 90       | 0          |
| CAS   | PAH-SIM       | 96       | 88       | 92       | 0          |
| CAS   | Alkylated PAH | 130      | 116      | 89       | 0          |
| Vista | PCB congeners | 95       | 22       | 23       | 0          |

# Willamette Cove Sampling and Analysis

|       |               |          | Data     |          |            |
|-------|---------------|----------|----------|----------|------------|
|       |               | Total #  | Received | %        | %          |
|       |               | Samples  | February | Analysis | Validation |
| Lab   | Analyte Group | for Task | 2008     | Complete | Complete   |
| CAS   | Conventionals | 1        | 0        | 100      | 100        |
| CAS   | Metals        | 1        | 0        | 100      | 100        |
| CAS   | Butyltins     | 1        | 0        | 100      | 100        |
| CAS   | TPH           | 1        | 0        | 100      | 100        |
| CAS   | VOC           | 1        | 0        | 100      | 100        |
| CAS   | Dioxins       | 1        | 0        | 100      | 100        |
| CAS   | Pesticides    | 1        | 0        | 100      | 100        |
| CAS   | PCBs          | 1        | 0        | 100      | 100        |
| CAS   | SVOC          | 1        | 0        | 100      | 100        |
| CAS   | Herbicides    | 1        | 0        | 100      | 100        |
| CAS   | PAH-SIM       | 1        | 0        | 100      | 100        |
| Vista | PCB congeners | 1        | 0        | 100      | 100        |



#### 4. SCHEDULE FOR THE NEXT FOUR MONTHS

Work described in the ASOC that is potentially planned for March, April, May, and June 2008 includes the following:

- March 2008: Feasibility Study Mobility Testing Field Sampling Plan
- March 2008: Round 3B Comprehensive Sediment and Bioassay Testing Field Sampling Report
- March 2008: Willamette Cove Sample Data Report
- April 2008: Round 3 Phase 2 Lamprey Toxicity Testing Report
- May 2008: In-River Sediment Trap Data Report
- June 2008: Stormwater Field Sampling Report

Submittal dates for pending products currently under preparation by LWG and scheduled for submittal in upcoming months are listed in Table 1.

### 5. DOCUMENTS AND ISSUES AWAITING EPA RESPONSE

EPA comments or approvals have not been received on several documents that have been submitted to EPA as required by the ASOC; these and other documents are listed in Table 1. The LWG requests document approvals to verify that the terms of the ASOC are being met and issues are resolved to maintain progress on the RI/FS.

If you have any questions, please give me a call at (360) 705-3534.

Sincerely,

Gene C. Revelas

RI/FS Coordinator

C C. 24

Copies: Jim Anderson, ODEQ (email only)

Dick Pedersen, ODEO (email only)

Rick Kepler, ODFW (email only)

Ted Buerger, USFWS (email only)

Rob Neely, NOAA (email only)

Ben Shorr, NOAA (email only)

Preston Sleeger, DOI (email only)

Brian Cunninghame, Confederated Tribes of Warm Springs (email only)

Rose Longoria, Confederated Tribes of Yakama Nation (email only)

Jeff Baker, Confederated Tribes of Grand Ronde (email only)

Tom Downey, Confederated Tribes of Siletz (email only)

Audie Huber, Confederated Tribes of Umatilla (email only)

Erin Madden, Nez Perce Tribe (email only)

Sheila Fleming, Ridolfi (email only)

**LWG** Repository



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>   | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date |
|--|------------------------------------|---|--------------------------------|
| Round 1  |                                    |   |                                |
| Conceptual Site Model<br>Update                                      | 9/17/2004                          | Submitted; EPA comments received 1/13/2005  |                                |
| Revised Conceptual Site<br>Model Update Site<br>Summaries            | 10/10/2005                         | Summaries submitted<br>10/10/2005 for Gasco,<br>Triangle Park, ExxonMobil,<br>Marcom, Arkema,<br>Gunderson, & Foss Brix | EPA comments not anticipated   |
| Remaining Revised<br>Conceptual Site Model<br>Update Site Summaries  | 2/28/2007                          | Summaries for Rhone-Poulenc and Siltronic submitted on 2/28/2007.   | 4/30/2007                      |
| Conceptual Site Model<br>Update - Remaining<br>Upland Site Summaries | First batch: 3/8/2005              | First batch submitted on 3/8/2005   | First batch: 5/8/2005          |
|  | Second batch: 3/8/2005             | Second batch submitted on 3/8/2005  | Second batch: 5/8/2005         |
|  | Third batch: 4/26/2005             | Third batch submitted on 4/26/2005  | Third batch: 6/27/2005         |
|  | Fourth batch: 4/26/2005            | Fourth batch submitted on 4/26/2005   | Fourth batch: 6/27/2005        |
|  | Fifth batch: 5/31/2005             | Fifth batch submitted on 5/31/2005  | Fifth batch: 8/1/2005          |
|  | Sixth batch: 5/31/2005             | Sixth batch submitted on 5/31/2005  | Sixth batch: 8/1/2005          |
|  | Seventh batch: 9/1/2005            | Seventh batch submitted on 9/2/2005   | Seventh batch: 10/31/2005      |
|  | Last batch: 2/28/2007              | Last batch submitted 2/28/2007  | Last batch: 4/30/2007          |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>  | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date                                    |  |
|---|------------------------------------|---|---|--|
| Compilation of<br>Information for Sources<br>Between RM 11 and 11.6<br>East Bank of Portland<br>Harbor        | November 2007                      | Submitted to EPA and DEQ 11/21/2007   |   |  |
| Round 2 Biota   |                                    |   |   |  |
| Revised Round 2 QAPP<br>Addendum 6: Sampling of<br>Benthic Invertebrate<br>Tissue                             | 11/23/2005                         | Submitted 11/23/2005;<br>approved with conditions on<br>12/6/2005; a final QAPP<br>addendum is required   | 12/8/2005   |  |
| Final Round 2 QAPP Addendum 6: Sampling of Benthic Invertebrate Tissue  | TBD                                | On 2/9/2006, the LWG submitted a response to EPA's comments on the 11/23/2005 version of the QAPP addendum. The LWG has not heard back from EPA on that response. The LWG believes that a final QAPP in not required. |   |  |
| Hydro/Sed Modeling  | -                                  |   |   |  |
| Phase 2 Recalibration<br>Results: Hydrodynamic<br>Sedimentation Modeling<br>for the Lower Willamette<br>River | 12/8/2006                          | Submitted 12/8/2006: EPA comments received 4/3/2007   |   |  |
| Revised Sedflume Data<br>Use Technical<br>Memorandum  | July 2007                          | Submitted 7/26/2007   | EPA comments<br>and conditioned<br>approval received<br>9/20/2007 |  |
| Groundwater Pathway   |                                    |   |   |  |
| Draft Round 2<br>Groundwater Pathway<br>Assessment Sampling and<br>Analysis Plan                              | 4/22/2005                          | Submitted 4/22/2005; EPA comments received 6/3/2005   |   |  |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>   | Submittal<br>Deadline <sup>2</sup> | Status/ Comments   | EPA<br>Comments<br>Target Date |
|--|------------------------------------|--|--------------------------------|
| Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan - Response to EPA Comments   | TBD                                | This response to comments is on hold pending resolution of ongoing TZW framework discussions with EPA related to Round 3 data gap identification.  |                                |
| Revised Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan (including Appendix A - Site Summaries and Appendix B - Pilot Study Data Report) | TBD                                | Revision of the Round 2<br>GWPA SAP is on hold<br>pending resolution of<br>ongoing TZW framework<br>discussions with EPA related<br>to Round 3 data gap<br>identification.   |                                |
| Round 2 FSP for<br>Sampling of Shoreline<br>Seeps at Human Use<br>Beaches  | 4/29/2005                          | Submitted 4/29/2005; EPA comments received 6/10/2005   |                                |
| Revised Round 2 FSP for<br>Sampling of Shoreline<br>Seeps at Human Use<br>Beaches  | No longer<br>needed                | The only seep determined to pose a potentially complete exposure pathway is discharge from Outfall 22B. The existing data from Outfall 22B include the upland COIs and meet the data quality requirements for risk evaluation (Category 1/QA2). Based on the Round 2 Report evaluations, no additional seep data are needed. Therefore, this FSP is no longer needed." |                                |
| Revised Round 2<br>Groundwater Pathway<br>Assessment SAP<br>Attachment 2: Transition<br>Zone Water FSP   | 3/27/2006                          | Redline version submitted 3/27/2006; final to be submitted following approval or comments from EPA   | 4/28/2006                      |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>            | Submittal             | Status/ Comments                                       | EPA         |
|-------------------------------------|-----------------------|--|-------------|
| Denverance                          | Deadline <sup>2</sup> |  | Comments    |
|                                     |                       |  | Target Date |
| Revised Round 2                     | 10/7/2005             | Submitted 10/7/2005:                                   |             |
| Groundwater Pathway                 | 10,7,2000             | Conditional approval of                                |             |
| Assessment SAP                      |                       | proposed changes to the                                |             |
| Attachment 3: Supplement            |                       | QAPP addendum received                                 |             |
| to QAPP Addendum 3                  |                       | from EPA on 9/30/2005.                                 |             |
|                                     |                       |  |             |
| Revised Transition-Zone             | 3/27/2006             | Submitted 3/27/2006                                    |             |
| Water FSP Addendum 1                |                       |  |             |
| Sampling Plans for                  |                       |  |             |
| ExxonMobil, Siltronic,              |                       |  |             |
| Gasco, and Arkema                   |                       |  |             |
|                                     |                       |  |             |
| Revised Transition-Zone             | 3/27/2006             | Submitted 3/27/2006                                    |             |
| Water FSP Addendum 2                |                       |  |             |
|                                     |                       |  |             |
| <b>Natural Attenuation</b>          |                       |  |             |
| Step 2 Natural                      | No longer             | EPA's proposed fate and                                |             |
| Attenuation Evaluation              | needed                | transport modeling approach                            |             |
| Report                              |                       | will provide the needed                                |             |
|                                     |                       | evaluation on monitored                                |             |
|                                     |                       | natural recovery (MNR). We                             |             |
|                                     |                       | propose that model be used to identify any further MNR |             |
|                                     |                       | data gaps and evaluations                              |             |
|                                     |                       | once it is up and running.                             |             |
|                                     |                       | once it is up and running.                             |             |
| Tech Memos                          |                       |  |             |
| Revised TRV Selection               | 10/23/2004            | Submitted; EPA comments                                |             |
| TM                                  |                       | received 3/18/2005. On                                 |             |
|                                     |                       | 6/10/2005, EPA directed the                            |             |
|                                     |                       | LWG to submit the final                                |             |
|                                     |                       | TRV Selection TM with the                              |             |
|                                     |                       | PRE.   |             |
|                                     |                       |  |             |
| Second Revision<br>Preliminary Risk | 1/7/2005              | Submitted; EPA comments received 3/4/2005. On          |             |
| Evaluation Approach                 |                       | 6/10/2005, EPA directed the                            |             |
| TM                                  |                       | LWG to submit the final                                |             |
|                                     |                       | PRE approach TM with the                               |             |
|                                     |                       | PRE.   |             |
|                                     |                       |  |             |
|                                     |                       |  |             |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>   | Submittal             | Status/ Comments  | EPA                  |
|--|-----------------------|---|----------------------|
| Denverance   | Deadline <sup>2</sup> | Status, Comments  | Comments Target Date |
| Comprehensive ERA<br>Approach TM   | 6/27/2004             | Submitted; EPA comments received 10/1/2004  |                      |
| Revised Comprehensive<br>ERA Approach TM   | TBD                   | In a 1/11/2006 meeting with EPA, the LWG proposed deleting this deliverable. The LWG has not heard back from EPA on this proposal.              |                      |
| Process for Derivation of PRGs TM  | 1/20/2005             | Submitted; EPA comments received 6/30/2006; a revised tech memo is not required.  | 3/21/2005            |
| Response to EPA<br>Comments on Process for<br>Derivation of PRGs TM                                | 9/1/2006              | Submitted 9/1/2006  |                      |
| Draft Approach to Determining Background for the Portland Harbor Superfund Site                    | 3/3/2006              | Submitted 3/3/2006; EPA comments received 6/5/2006; revised tech memo required.   | 5/2/2006             |
| Revised Approach to Determining Background for the Portland Harbor Superfund Site                  | 7/20/2006             | LWG response to EPA comments was submitted on 7/14/2006. Further discussion with EPA is required before the tech memo can be revised.           |                      |
| Process for Delineating<br>the Extent of<br>Contamination Upstream<br>and Downstream of the<br>ISA |                       | The approach for Delineating<br>the Extent of Contamination<br>Upstream and Downstream<br>of the ISA will be provided<br>in the Draft RI Report |                      |
| COPC Selection Interim<br>Deliverable  | ~1/23/2006            | In a 1/11/2006 meeting with EPA, the LWG proposed deleting this deliverable. The LWG has not heard back from EPA on this proposal.              |                      |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>  | Submittal<br>Deadline <sup>2</sup> | Status/ Comments   | EPA<br>Comments<br>Target Date  |  |  |  |
|---|------------------------------------|--|---|--|--|--|
| ECOLOGICAL RISK AS  | ECOLOGICAL RISK ASSESSMENT         |  |   |  |  |  |
| Ecological Preliminary<br>Risk Evaluation (PRE)   | 9/9/2005                           | Submitted 9/9/2005; EPA comments received 4/28/2006, a revised PRE is not required   | 11/8/2005   |  |  |  |
| Bioassay Data Report  | 4/15/2005                          | Submitted 4/8/2005   | 6/7/2005; EPA comments not anticipated  |  |  |  |
| Round 2 Benthic<br>Assessment Interpretation<br>Report  | 3/17/2006                          | Submitted 3/17/2006; EPA comments received 7/6/2006  | 5/16/2006   |  |  |  |
| Food Web Modeling Report: Evaluating Trophic Trace and the Arnot and Gobas Models for Application to the Portland Harbor Superfund Site                             | 11/4/2005                          | Submitted 11/4/2005; EPA comments received 3/10/2006   | 1/3/2006  |  |  |  |
| Response to EPA comments on Food Web Modeling Report: Evaluating Trophic Trace and the Arnot and Gobas Models for Application to the Portland Harbor Superfund Site | 4/21/2006                          | Submitted 4/21/2006  |   |  |  |  |
| Revised Ecological Water<br>Screening Levels  | 5/26/2006                          | Submitted 5/25/2006;<br>directive EPA comments<br>received 9/15/2006, and a<br>correction to the xylene<br>AWQC on 9/27/06.<br>Additional revisions were<br>submitted on 10/13/2006. | 7/9/2006; delay in<br>receipt of EPA<br>comments or<br>approval of this<br>submittal will<br>impact the project<br>schedule |  |  |  |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>   | Submittal<br>Deadline <sup>2</sup>                      | Status/ Comments   | EPA<br>Comments<br>Target Date   |
|--|---|--|--|
| Feasibility Study  |   |  |  |
| 2003 Sediment Stake<br>Results Report                            | 4/16/2004   | Submitted  | EPA comments not anticipated   |
| Draft Disposal Site<br>Inventory Preliminary<br>Screening Report | 7/12/2004   | Submitted  | 9/10/2004; project<br>schedule not yet<br>impacted by lack of<br>comments on this<br>submittal |
| Facility Siting Re-Screen<br>Report                              | TBD, Work<br>Plan submittal<br>deadline is<br>3/14/2005 | In a 2/8/2006 meeting, EPA stated that it agreed to delete this deliverable.   |  |
| Literature Survey of<br>Treatability Studies                     | October 2007  | Submitted 10/31/2007. EPA comments received 2/15/08.   | Jan-08   |
| Mobility Testing FSP   | 3/24/2008   | A preliminary technical memo for mobility testing was submitted to EPA on December 11, 2007. Comments from EPA were received on January 24, 2008. EPA requested a 30 day turnaround for the FSP, but agreed to the 60 days requested by the LWG. |  |
| Mobility Testing QAPP  | April 2008  | see previous item  |  |
| Side-scan Sonar FSP  | January 2008  | Submitted 1/18/08  |  |



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| Deliverable <sup>1</sup>   | Submittal<br>Deadline <sup>2</sup>                                 | Status/ Comments     | EPA<br>Comments<br>Target Date                |  |  |
|--|--|----------------------|---|--|--|
| General Field/Data/R   | General Field/Data/RI Reporting                                    |                      |   |  |  |
| Validated Analytical<br>Results  | 90 days<br>following<br>completion of<br>each sampling<br>activity |                      |   |  |  |
| Round 2 Surface Sediment<br>Field Sampling Report                            | 1/4/2005   | Submitted            | 3/7/2005; EPA comments not anticipated        |  |  |
| Round 2A Subsurface<br>Sediment Field Sampling<br>Report                     | 1/10/2005  | Submitted            | 3/11/2005; EPA comments not anticipated       |  |  |
| Round 2A Event 1 Surface<br>Water Field Sampling<br>Report                   | 1/31/2005  | Submitted            | 4/1/2005; EPA comments not anticipated        |  |  |
| Round 2A Winter 2005<br>Surface Water Field<br>Sampling Report               | 5/16/2005  | Submitted            | 7/15/2005; EPA comments not anticipated       |  |  |
| Round 2A Summer 2005<br>Surface Water Field<br>Sampling Report               | 9/19/2005  | Submitted            | 11/19/2005; EPA comments not anticipated      |  |  |
| Round 2 Subyearling<br>Chinook Tissue<br>Collection Field Sampling<br>Report | 7/18/2005  | Submitted 7/18/2005  | 9/16/2005; EPA comments not anticipated       |  |  |
| Round 2 Multiplate Tissue<br>Field Sampling Report                           | 11/23/2005   | Submitted 11/23/2005 | 1/13/2006; EPA<br>comments not<br>anticipated |  |  |
| Draft Round 2 Sediment<br>Site Characterization<br>Summary Report            | 7/15/2005  | Submitted 7/15/2005  | 9/13/2005; EPA comments not anticipated       |  |  |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>   | Submittal<br>Deadline <sup>2</sup> | Status/ Comments     | EPA<br>Comments<br>Target Date           |
|--|------------------------------------|----------------------|--|
| Draft Round 2 Surface<br>Water Data Report for<br>November 2004 and<br>March 2005 Sampling<br>Events | 10/17/2005                         | Submitted 10/17/2005 | 12/16/2005; EPA comments not anticipated |
| Round 2B Subsurface<br>Sediment Field Sampling<br>Report   | 12/28/2005                         | Submitted 12/29/2005 | 2/24/2006; EPA comments not anticipated  |
| Round 2 Transition Zone<br>Water Field Sampling<br>Report  | 1/31/2006                          | Submitted 1/31/2006  | 4/3/2006; EPA comments not anticipated   |
| Round 2 Benthic<br>Invertebrate Field<br>Sampling Report   | 2/20/2006                          | Submitted 2/20/2006  | 4/21/2006; EPA comments not anticipated  |
| Round 2 Surface Water<br>Site Characterization<br>Summary Report                                     | 4/24/2006                          | Submitted 4/24/2006  | 6/23/2006                                |
| Round 2 Juvenile Chinook<br>Tissue Data Report   | 3/31/2006                          | Submitted 3/31/2006  | 5/29/2006; EPA comments not anticipated  |
| Round 2A Surface<br>Sediment PCB Congeners<br>Data Report  | 4/10/2006                          | Submitted 4/10/2006  | 6/9/2006; EPA comments not anticipated   |
| Round 2A Archived<br>Subsurface Sediment<br>Data Report  | 5/5/2006                           | Submitted 5/8/2006   | 7/7/2006; EPA comments not anticipated   |
| Round 2B Subsurface<br>Sediment Data Report  | 5/22/2006                          | Submitted 5/22/2006  | 7/21/2006; EPA comments not anticipated  |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>   | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date  |
|--|------------------------------------|---|---|
| Round 2 Groundwater Pathway Assessment Transition Zone Water and Sediment Data Validation Technical Memorandum |                                    | This tech memo was submitted as part of the Round 2 transition zone water site characterization summary report. |   |
| Round 2 Multiplate<br>Invertebrate Tissue Data<br>Report   | 6/12/2006                          | Submitted 6/12/2006   | 8/11/2006; EPA<br>comments not<br>anticipated                                 |
| Round 2<br>Hydrodynamic/Sediment<br>Transport Modeling Data<br>Collection Field Sampling<br>Report             | 6/19/2006                          | Submitted 6/19/2007   | 10/2/2006; EPA<br>comments not<br>anticipated                                 |
| Round 2 Benthic Tissue<br>and Sediment Data<br>Report  | 9/6/2006                           | Submitted 9/6/2006  | 11/6/2006; EPA<br>comments not<br>anticipated                                 |
| Round 2 Transition Zone<br>Water Site<br>Characterization<br>Summary Report                                    | 8/7/2006                           | Submitted 8/7/2006  | 11/6/2006   |
| Comprehensive Round 2<br>Site Characterization<br>Summary and Data Gaps<br>Analysis Report                     | 2/21/2007                          | Submitted 2/21/2007   | Comments received 1/15/08 on Sections 1-9 and Appendices A, B, C, D, F, and G |
| ROUND 3  |                                    |   |   |
| Round 3 January 2006   | 3/22/2006                          | Submitted 3/27/2006   | 5/22/2006; EPA  |
| High-flow Event Surface<br>Water Field Sampling<br>Report  | -: <del>-</del>                    |   | comments not anticipated  |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>  | Submittal             | Status/ Comments  | EPA   |  |
|---|-----------------------|---|---|--|
|   | Deadline <sup>2</sup> |   | Comments Target Date  |  |
| Round 3 January 2006<br>Surface Water Sampling<br>Event Data Report   | 10/23/2006            | Submitted 10/23/2006  | 12/22/2006; EPA comments not anticipated  |  |
| Round 3A September<br>2006 Low-flow Event<br>Surface Water Sampling<br>Field Sampling Report                                  | 12/8/2006             | Submitted 12/8/2006   | 2/6/2007; EPA comments not anticipated  |  |
| Round 3A November 2006<br>Stormwater Runoff Event<br>Surface Water Sampling<br>Field Sampling Report                          | 1/15/2007             | Submitted 1/15/2007   | 3/16/2007; EPA comments not anticipated   |  |
| Round 3A 2007 High<br>Flow Surface Water Field<br>Sampling Report   | 5/9/2007              | Submitted 04/30/07  | TBD; EPA comments not anticipated   |  |
| Round 3A Surface Water<br>Data Report for<br>September 2006 Low-flow<br>Event add November<br>2006 Stormwater Runoff<br>Event | 5/21/2007             | Submitted 5/21/2007   | TBD; EPA comments not anticipated   |  |
| Round 3A 2007 High<br>Flow Surface Water Data<br>Report   | October 2007          | Submitted 10/15/2007  | TBD; EPA comments not anticipated   |  |
| TZW   |                       |   |   |  |
| Gunderson TZW Field<br>Sampling Plan  | August 2007           | Submitted 08/16/07; revised Tech Approach memo submitted 10/10/2007 | EPA comments<br>received on<br>9/20/2007; EPA<br>approval on revised<br>FSP received on<br>10/11/07 |  |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>  | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date  |
|---|------------------------------------|---|---|
| Round 3 Gunderson TZW<br>Field Sampling Report  | December 2007                      | Submitted 12/21/07  | TBD: EPA comments not anticipated   |
| BIOTA   |                                    |   |   |
| Revised FSP: Round 3<br>Sampling for Pre-<br>Breeding White Sturgeon<br>(Acipenser<br>transmontanus) Tissue | 12/22/2006                         | Submitted 12/22/2006;<br>approved by EPA with<br>conditions on 2/15/2007  | 1/22/2007   |
| Round 3 Lamprey<br>Ammocoete Tissue<br>Collection Field Sampling<br>Report                                  | 12/15/2006                         | Submitted 12/15/2006  | 2/16/2007; EPA<br>comments not<br>anticipated   |
| Round 3 Sturgeon Field<br>Sampling Report   | 5/7/2007                           | Submitted 05/07/07  | TBD; EPA<br>comments not<br>anticipated   |
| Round 3 Lamprey<br>Ammocoete Phase 1<br>Toxicty Testing Data<br>Report (and comment<br>responses)           | 4/6/07                             | Submitted 04/06/07  | 6/8/2007  |
| Round 3 Lamprey<br>Toxicity Testing FSP<br>Addendum   |                                    | Submitted 07/09/07;<br>response to comments<br>submitted 08/10/07; revised<br>FSP and QAPP addenda<br>submitted 9/12/2007 | EPA comments<br>received 07/20/07;<br>EPA approval<br>received 08/17/07;<br>EPA comments on<br>revised FSP/QAPP<br>addenda not<br>anticipated |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

|  |                                    | Portland Harbor RI/FS   | EDA   |
|--|------------------------------------|---|---|
| Deliverable <sup>1</sup>                                     | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date  |
| Round 3 Biota Sampling<br>FSP                                | 8/10/2007                          | Submitted 08/10/07; revised FSP submitted 10/26/2007                                | EPA comments<br>and conditional<br>approval on draft<br>received 8/17/07;<br>EPA approval on<br>final FSP received<br>12/3/07 |
| Round 3B QAPP<br>Addendum 9 for Biota<br>Sampling            | October 2007                       | Submitted 10/31/07  | EPA approval received 12/3/07   |
| Round 3 Lamprey<br>Ammocoete Tissue<br>Testing Data Report   | August 2007                        | Submitted 08/24/07  | TBD; EPA comments not anticipated   |
| Juvenile Lamprey Tissue<br>Data Interpretation<br>Memorandum | September 2007                     | Submitted 09/12/07  | TBD   |
| Round 2 Mussels Data<br>Report                               | October 2007                       | Submitted 10/1/2007   |   |
| Round 3 Phase 2<br>Lamprey Toxicity Testing<br>Report        | April 2008                         | Data report within 120 days of completion of each phase of testing per Phase 1 FSP. |   |
| Round 3B Biota Field<br>Sampling Report                      | February 2008                      | Submitted 2/15/08   |   |
| Round 3 Sturgeon Data<br>Report                              | 2/13/2008                          | Submitted 2/29/08   |   |
| STORMWATER   |                                    |   |   |
| Round 3A Field Sampling<br>Plan: Stormwater<br>Sampling      | 2/7/2007                           | Submitted 2/7/2007;<br>approved by EPA on<br>2/15/2007 with comments.               |   |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>  | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date          |
|---|------------------------------------|---|---|
| Round 2 QAPP<br>Addendum 8: Round 3A<br>Stormwater Sampling   | 2/7/2007                           | Submitted 2/7/2007;<br>approved by EPA on<br>2/15/2007 with comments. |   |
| Round 3A Upland<br>Stormwater Field<br>Sampling Report  | December 2007                      | Submitted 12/05/07  | 1/31/2008                               |
| Round 3A Stormwater<br>FSP Addendum   | November 2007                      | Submitted 11/2/07   | Approved by EPA 11/6/07                 |
| Stormwater Field<br>Sampling Report   | 6/15/2008                          |   |   |
| Stormwater Site<br>Characterization<br>Summary Report   | TBD                                |   |   |
| Stormwater Loading<br>Estimate Methods Report   | None                               |   | TBD                                     |
| SEDIMENT  |                                    |   |   |
| Round 3A Sediment<br>Upstream / Downstream<br>Field Sampling Report                                     | 4/9/2007                           | Submitted 04/09/07  | TBD; EPA<br>comments not<br>anticipated |
| Round 3B Field Sampling<br>Plan: Sediment Sampling<br>and Benthic Toxicity<br>Testing                   |                                    | Submitted 5/4/2007  | TBD;                                    |
| Upriver and Multnomah<br>Channel Sediment<br>Evaluation and Field<br>Sampling PlanTechnical<br>Approach |                                    | Submitted 5/25/2007   | TBD                                     |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>   | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date    |
|--|------------------------------------|---|-----------------------------------|
| Draft Round 3B Surface<br>and Core Sediment FSP<br>Preliminary Technical<br>Memorandum |                                    | Submitted 5/25/2007   | TBD                               |
| Draft Round 3B Erosion<br>Core Sediment FSP<br>Technical Memornadum                    | August 2007                        | Submitted 8/29/07   | TBD                               |
| Round 3A Sediment<br>Upstream / Downstream<br>Data Report                              | 8/6/2007                           | Submitted 7/30/07   | TBD; EPA comments not anticipated |
| Round 3A Sediment<br>Radioisotope Data Report  | November 2007                      | Submitted 11/16/2007  |                                   |
| Round 3B Comprehensive<br>Sediment and Bioassay<br>Testing Field Sampling<br>Plan      | November 2007                      | Submitted 11/5/07;<br>submitted revised maps,<br>tables, App. A-11 (Hist. Rd)<br>12/17/07 | 11/9/07 conditional<br>approval   |
| Round 3B QAPP<br>Addendum 10 for<br>Sediment Sampling                                  | November 2007                      | Submitted 12/17/2007  |                                   |
| Round 3B Comprehensive<br>Sediment and Bioassay<br>Testing Field Sampling<br>Report    | March 2008                         | Planned for submittal 3/15/2008   |                                   |
| Willamette Cove Data<br>Report   | March 2008                         | Planned for submittal 3/15/2008   |                                   |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>  | Submittal<br>Deadline <sup>2</sup> | Status/ Comments  | EPA<br>Comments<br>Target Date   |  |
|---|------------------------------------|---|--|--|
| SEDIMENT TRAP (IN-RIVER)  |                                    |   |  |  |
| Round 3A Sediment Trap<br>Sampling Quarter 1 Field<br>Report                                      | April 2007                         | Submitted 04/16/2007  | TBD; EPA comments not anticipated  |  |
| Round 3A Sediment Trap<br>Sampling Quarter 2 Field<br>Report                                      | August 2007                        | Submitted 08/07/2007  | TBD; EPA<br>comments not<br>anticipated  |  |
| Round 3A Sediment Trap<br>Sampling Quarter 3 Field<br>Report                                      | October 2007                       | Submitted 10/25/2007  |  |  |
| Round 3A Sediment Trap<br>Sampling Quarter 4 Field<br>Report                                      | January 2008                       | Submitted 1/24/2008   |  |  |
| Sediment Trap Data<br>Report  | 5/7/2008                           |   | 6/30/2008  |  |
| FATE & TRANSPORT  |                                    |   |  |  |
| Draft Chemical Fate &<br>Transport Model<br>Development and Data<br>Gaps Identification<br>Report | July 2007                          | Submitted 7/20/2007; response to comments being prepared bt the LWG | EPA comments received 10/15/07   |  |
| F&T Surface Sediment<br>FSP – Addendum to 3B<br>Sediment FSP                                      | December 2007                      | Submitted 12/10/2007  | EPA comments<br>received 1/2/08.<br>1/16/08 LWG<br>agreed with EPA<br>not to perform the<br>sampling |  |



Table 1. Status of LWG Deliverables - Portland Harbor RI/FS

| Deliverable <sup>1</sup>                 | Submittal<br>Deadline <sup>2</sup> | Status/ Comments     | EPA<br>Comments<br>Target Date   |  |
|--|------------------------------------|----------------------|--|--|
| CULTURAL RESOURCES                       |                                    |                      |  |  |
| Draft Cultural Resource<br>Survey Report | 12/16/2005                         | Submitted 12/16/2005 | 2/14/2006; EPA comments not time-critical at this point in the project |  |

#### Notes:

Unbolded Deliverables are secondary deliverables per Section XIX, Paragraph 5 of AOC. *Italicized Deliverables* do not have stipulated penalty amounts.

## Only deliverables due within the next four months are shown.

Deliverable completed and approved by EPA.

Deliverable submitted to EPA and its partners.

Underlining indicates text change from last progress report.

<sup>&</sup>lt;sup>1</sup> - **Bolded Deliverables** are primary deliverables per Section XIX., Paragraph 4 of AOC (EPA 2001a).

<sup>&</sup>lt;sup>2</sup> - Listed Submittal Deadlines are for draft documents. Unless otherwise specified, all final documents are due to EPA 30 days following receipt of comments from EPA.